

U.S. Serial No. 10/797,452
Amendment Dated February 7, 2006
Response To Office Action Dated November 9, 2005

REMARKS

The pending application was filed on March 10, 2004 with claims 1-20. The Examiner issued a Non-Final Office Action dated April 28, 2005 rejecting claims 1-20. A Response was filed August 29, 2005. The Examiner issued a Final Office Action dated November 9, 2006 in which claims 1-6, 9-16, 19 and 20 were rejected. In particular, the Examiner rejected claims 1-3, 5, 11-13 and 15 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,102,298 to *Kreitmeier*. The Examiner also rejected claims 4, 6, 9, 10, 14, 16, 19 and 20 under 35 U.S.C. §103(a) as being unpatentable over *Kreitmeier*.

Claims 1 and 11 are amended herein and arguments are presented differentiating the claimed invention from the cited references. Claims 7, 8, 17, and 18 have been previously canceled without prejudice. Claims 1-6, 9-16, and 19-20 remain pending in the patent application. In view of the arguments presented above and the arguments set forth below, claims 1-6, 9-16, and 19-20 are allowable, and the Examiner is respectfully requested to withdraw the rejections and issue a timely Notice of Allowance.

I. REJECTION OF CLAIMS 1-3, 5, 11-13 AND 15 UNDER 35 U.S.C. §103(a)

The Examiner rejected claims 1-3, 5, 11-13 and 15 under United States Patent No. 5,102,298 to *Kreitmeier*. The Examiner argued that *Kreitmeier* discloses a seal comprising a plurality of blades extending radially from a rotatable body and generally forming at least one row of blades, and a plurality of blades extending radially from a stationary body towards the

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rotatable body and generally forming at least one row of blades, wherein the plurality of blades extending radially from the stationary body are positioned proximate to the plurality of blades extending from the rotatable body and are nonparallel with the plurality of blades extending from the rotatable body. The Examiner also made additional statements that are recitations of the elements of the above-identified claims.

Claims 1 and 11 have been amended and state, in relevant part, "a high pressure gas region in the turbine engine that is proximate to the plurality of blades extending radially from the stationary body and opposite to the plurality of blades extending radially from a rotatable body; a low pressure gas region in the turbine engine that is proximate to the plurality of blades extending radially from a rotatable body and opposite to the plurality of blades extending radially from the stationary body, wherein the low pressure region has a pressure less than the high pressure region; wherein the plurality of blades extending from the rotatable body and the plurality of blades extending from the stationary body form the seal between the high pressure gas region and the low pressure gas region" Thus, the claimed configuration forms a seal between high and low pressure regions.

In contrast, the blade configuration disclosed *Kreitmeier* is designed to reduce a vortex (10) that is created in conventional designs proximate to a turbine vane (11). The blade configuration of *Kreitmeier* is designed such that turbine blades (12) propel air downstream and away from a stationary turbine vane (11). No mention is made of propelling gases from a low pressure region toward a high pressure region. In fact, just the opposite

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occurs in *Kreitmeier*. The blades shown in *Kreitmeier* are used for power generation for rotating a rotatable body as a fluid passes the blade. Specifically, fluids in *Kreitmeier* are propelled from a high pressure region to a low pressure region. Thus a seal is not formed. Rather, a conventional turbine blade assembly is disclosed. Thus, for at least these reasons, amended claims 1 and 11, and those claims depending therefrom, are allowable, and the Examiner is respectfully requested to withdraw the rejection.

III. REJECTION OF CLAIMS 4, 6, 9, 10, 14, 16, 19 AND 20 UNDER 35 U.S.C. §103(a)

The Examiner rejected claims 4, 6, 9-10, 14, 16, and 19-20 under 35 U.S.C. §103(a) as being unpatentable over *Kreitmeier*. The Examiner stated that *Kreitmeier* discloses the claimed invention, but admitted that the angle of the blades on the rotatable and stationary body being about 60 degrees relative to the rotational axis of the rotatable body was not disclosed. The Examiner stated that discovering an optimum value for a variable involves only routine skill without showing an unexpected result. The Examiner concluded that because such an unexpected result is not shown that it would have been obvious to one of ordinary skill in the art to have the angle be 60 degrees.

The Examiner also stated that *Kreitmeier* discloses the claimed invention but admitted that the gap between the blades of the rotatable body and the stationary body being about 0.6 mm and the gap between the blades of the stationary body and the rotatable body being about 0.6 mm is not disclosed. The Examiner stated that discovering an optimum value for a

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variable involves only routine skill without showing an unexpected result. The Examiner concluded that because such an unexpected result is not shown that it would have been obvious to one of ordinary skill in the art to have a gap between the blades be 0.6 mm.

Independent claims 1 and 11 have been amended to place the claims in a condition for allowance. Claims 4, 6, 9-10, 14, 16, and 19-20 depend directly or indirectly from independent claims 1 and 11. For at least this reason, claims 4, 6, 9-10, 14, 16, and 19-20 are allowable, and the Examiner is respectfully requested to withdraw the rejection and issue a Notice of Allowance.

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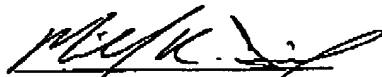
CONCLUSION

For at least the reasons given above, claims 1-6, 9-16, and 19-20 define patentable subject matter and are thus allowable. The undersigned representative thanks the Examiner for examining this application.

Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is respectfully requested to contact the undersigned representative at the telephone number listed below.

No fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 50-0951.

Respectfully submitted,



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